

**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of

New Part 4 of the Commission's Rules
Concerning Disruptions to
Communications

ET Docket No. 04-35

COMMENTS OF

CTIA – THE WIRELESS ASSOCIATION™

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Dated: May 25, 2004

SUMMARY

CTIA – The Wireless Association™ believes the approach taken in the FCC’s NPRM is unnecessary in light of ongoing voluntary reporting efforts and Homeland Security initiatives. Rather than mandate a public reporting at this time, the Commission should instead rely on the much improved voluntary outage reporting system to provide the Commission with timely, detailed information to perform its obligations. Specifically, the *voluntary* Industry Led Outage Reporting Initiative (“ILORI”) process will provide for the collection of more effective data and incent carriers to work together to address network vulnerabilities.

As detailed in these comments, CTIA believes that extending the outage reporting requirements as proposed could negatively impact Homeland Security. CTIA submits that the NPRM risks providing a roadmap for bad actors seeking to disable critical components of our information infrastructure by making detailed information on communications network vulnerabilities available to the public.

CTIA recommends that the Commission refrain from mandating public reporting of network outage information at this time. The Commission should instead review the current industry ILORI process, which is successfully achieving the same goals that the FCC is seeking to achieve in the NPRM. Rather than move ahead with its proposed regulations that broadly expand the current reporting of network outage information, the FCC should work with the Department of Homeland Security to develop uniform policies and guidelines for protecting, not exposing to harm, the national communications infrastructure.

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CTIA - The Wireless Association™ (“CTIA”)¹ respectfully submits these comments on the Notice of Proposed Rulemaking in the above-referenced proceeding.² The FCC is proposing to extend the communications network outage reporting requirements, which currently apply to wireline providers, to all communications carriers, including wireless operators. CTIA fully appreciates the need to monitor critical infrastructure outages, but believes the approach taken in the NPRM is unnecessary given the level of detailed information that is flowing and will continue to flow from the completely revised and totally new Industry Led Outage Reporting Initiative (“ILORI”). Additionally, the approach proposed by the Commission runs counter to the direction of several recent and ongoing Homeland Security government initiatives.³ As

¹ CTIA is the international organization of the wireless communications industry for both wireless carriers and manufacturers. CTIA membership covers all Commercial Mobile Radio Service (“CMRS”) providers and manufacturers, including cellular, broadband PCS, ESMR, as well as providers and manufacturers of wireless data services and products.

² FCC 04-30, rel. Feb. 23, 2004 (“NPRM”).

³ *See, e.g.*, Homeland Security Act 2002: Critical Infrastructure Information Act, February 28, 2003; *see also* Homeland Security Presidential Directive / HSPD-7, Subject: Critical Infrastructure Identification, Prioritization, and Protection, Dec. 17, 2003.

discussed below, CTIA submits that the Commission should consider alternatives to the proposals in the NPRM and proceed with due regard for broader national security objectives.

As an initial matter, the NPRM proposal for wireless carriers is unnecessary in light of ongoing voluntary network outage reporting efforts. Specifically, the Sixth Network Reliability and Interoperability Council's Focus Group 2 report was provided to the FCC in December 2003, and recommended that continued outage reports and improvements to the reporting process be incorporated in a new outage reporting program that systematically addresses every concern raised by the FCC about the trial process. This is a new initiative, completely revised from the former voluntary effort. This initiative is a perfect example of a private-public partnership designed to protect and preserve privately-owned elements of Critical Infrastructure. The Commission should monitor this growing and evolving industry initiative before it considers a mandatory reporting system.

CTIA believes that voluntary reporting will provide for the collection of timely, beneficial data concerning service interruptions from the wireless industry, without the need for cumbersome regulatory oversight. Additionally, the *voluntary* Industry Led Outage Reporting Initiative ("ILORI") process provides an incentive for carriers to report outages/infrastructure problems in a constructive, problem-solving manner, something that will not result from an FCC mandated process.

Perhaps most important, the NPRM risks providing a roadmap for bad actors seeking to disable critical components of our information infrastructure by aggregating and making publicly available detailed information on communications network vulnerabilities. Any regulations mandating the public disclosure of such critical information must be examined closely, and should be consistent with the recent Homeland Security Presidential Directive that orders Federal

departments and agencies to “identify, prioritize, and coordinate the protection of critical infrastructure and key resources in order to prevent, deter, and mitigate the effects of deliberate efforts to destroy, incapacitate, or exploit them.”⁴ Rather than move ahead with the proposals in the NPRM that risk exposing our nation’s communications vulnerabilities, the FCC should, like a host of other government agencies, reduce the existence of open-source data by allowing information on outages to be collected voluntarily and submitted to the Department of Homeland Security (“DHS”).

I. A VOLUNTARY OUTAGE REPORTING SYSTEM WILL PROVIDE THE COMMISSION WITH SUFFICIENT INFORMATION TO PERFORM ITS OBLIGATIONS.

Rather than impose the mandatory reporting requirements as proposed in the NPRM, the FCC should embrace the newly revised ILORI effort. This initiative addresses all of the Commission’s concerns with the previous voluntary effort. It is an industry-led effort to gather and analyze information on network outages. The ILORI effort establishes a network reliability monitoring capability for the nation’s communications infrastructure and provides a forum for industry experts to review outage data in a trusted environment to achieve early trend identification and capture key knowledge about the networks. It ultimately will provide the Commission with significant detail regarding network outages. To address concerns about wireless participation, it establishes a mechanism to ensure that carriers report each month. The system incorporates reminders and escalations aimed at ensuring the timeliness and quality of outage reporting.

There are additional benefits. Under the voluntary effort, this detailed information on network outages and potential vulnerabilities is provided a level of protection that is necessary in

⁴ Homeland Security Presidential Directive / HSPD-7, Subject: Critical Infrastructure Identification, Prioritization, and Protection, Dec. 17, 2003 (hereinafter “HSPD”).

the current environment. Perhaps most important, the voluntary process can be amended rapidly to recognize the need for collection of new information. In the end, if the Commission still is unsatisfied with the voluntary effort, it can move to mandate the reporting.

CTIA believes the NPRM's mandatory reporting is unnecessary because ILORI will provide the Commission with a significant and sufficient amount of detailed outage information on a voluntary basis. In fact, the information to be reported under the ILORI process closely mirrors the information contained in the NPRM. In addition, under the auspices of ILORI, the information will be reported using a web-based computer program that has been in use since March 2004 by wireless and other communications providers to report service disruptions voluntarily. The data is accessible by the National Coordinating Center within DHS, which works with each provider of specific network outage reports to make sure that company confidentiality is maintained. Thereafter, the information could be shared with the FCC and the Network Reliability Steering Committee ("NRSC") under the protection afforded by the Critical Infrastructure Information Act.

As the Commission recognizes in the NPRM, voluntary efforts benefit the Commission, the telecommunications industry, and the public interest. The Network Reliability and Interoperability Council VII ("NRIC") and related organizations have voluntarily developed more than seven hundred "best practices" for use by carriers and manufacturers to reduce the likelihood and impact of network outages, and to facilitate the restoration process.⁵ These best practices are an integral component of the ILORI process. Unfortunately, the NPRM wrongly justifies the need to expand mandatory reporting to the wireless sector based on a mischaracterization that the Best Practices were developed as a result of the mandatory ILEC

⁵ NPRM ¶ 6.

outage reporting. This is incorrect. The “absence of useful outage reports from wireless, satellite, and public data network providers”⁶ did not hamper the efforts of the fifth and sixth Network Reliability and Interoperability Councils to develop Best Practices, as the FCC states. In fact, according to industry experts who have led the development of the NRIC Best Practices and who have participated in the NRSC, less than 5% of the Best Practices are attributable to mandatory outage reporting. Over 500 of the Best Practices were developed during NRIC VI, when wireless was a participant and was reporting outages voluntarily. CTIA as well as the National Cable Telecommunications Association and the Internet Operators participated in both the fifth and sixth NRIC proceedings, enabling it to complete its mission. Notably, representatives from all sectors of the communications industry are participating in the ILORI process, working to develop voluntary outage reporting that fully meets the requirements outlined by the Commission.

The wireless industry fully appreciates the importance of learning from outages, especially in the wake of September 11, 2001. However, rather than mandate public reporting at this time, the Commission should rely on a process to gather and review data on network outages⁷ that respects national security objectives, and is consistent with other Homeland Security government initiatives, including the recently enacted Critical Infrastructure Information Act (“CIIA”).⁸

⁶ Id.

⁷ In addition to the ILORI process, the Network Reliability Steering Committee (“NRSC”) conducts analysis of all outage reports, and where necessary, NRSC initiates focused studies to determine the viability of best practices, which are often revised. *See* NPRM ¶¶ 6, 9. As is well known in the industry, communications providers often work very closely with manufacturers to determine the root cause of equipment failures.

⁸ CIIA provides for an exemption from disclosure under the Freedom of Information Act information that is submitted voluntarily to the Department of Homeland Security that satisfies

II. EXTENDING THE OUTAGE REPORTING REQUIREMENTS AS PROPOSED WILL NEGATIVELY IMPACT HOMELAND SECURITY.

Without question, America's communications network is an essential component of our critical infrastructure, and the FCC should not expose network outage information to bad actors. The FCC's proposal is poised to do just that. At a time when the President has ordered a full-scale review of our nation's critical infrastructure protection and planning, the Commission, as the expert agency on nationwide communications is headed in the opposite direction, proposing to expose data on network vulnerabilities to "Bad Actors." This does not make sense in the current environment. The FCC should work and collaborate with the expert agency on Homeland Security, and do nothing to potentially expose our nation to increased risk.⁹

In fact, the FBI's National Information Protection Center has warned that individuals around the globe are using publicly-available information to plan attacks on the U.S. infrastructure.¹⁰ In light of the risks posed by providing easy access to critical infrastructure information, officials from at least three agencies have decided to remove documents from their Internet websites:

The EPA dismantled its risk management program Web site, which contains general information about emergency plans and chemicals used at 15,000 sites nationwide. More sensitive information about "worst case" chemical accidents is kept in special reading rooms.

the goals of the Act. The ILORI process is designed to satisfy these requirements and be eligible for CIIA protection.

⁹ HSPD ¶ 25 (Homeland Security Department will "collaborate with appropriate private sector entities and continue to encourage the development of information sharing and analysis mechanisms [and] facilitate sharing of information about ... vulnerabilities, incidents, potential protective measures, and best practices."). Notably, this is entirely consistent with the ILORI process.

¹⁰ See William Matthews, *Walking a Fine Line On Web Access*, FEDERAL COMPUTER WEEK, Feb. 4, 2002.

At the Department of Transportation, officials removed pipeline mapping information as well as a study describing risk profiles of various chemicals. “We thought this was maybe too easy a place to locate all this information,”

And the Centers for Disease Control and Prevention removed a “Report on Chemical Terrorism,” which describes industry's shortcomings in preparing for a possible terrorist attack.¹¹

The proposal in the NPRM is in direct opposition to the direction being taken by these and other Federal agencies.

CTIA believes the Commission should reconsider extending the network outage reporting requirements to CMRS carriers until the DHS has developed its strategic plan pursuant to Presidential Directive HSPD-7.¹² Additionally, later this year, the Secretary of DHS will issue the National Infrastructure Protection Plan, a national strategic plan for “analysis, warning, information sharing, vulnerability reduction, mitigation, and aiding national recovery efforts for critical infrastructure.”¹³ CTIA believes sound public policy dictates reviewing that strategic

¹¹ Guy Gugliotta, *Agencies Scrub Web Sites Of Sensitive Chemical Data; Government Debates Safety Versus Security*, WASHINGTON POST, Oct. 4, 2001. *See also* Ellen Nakashima, *FERC Seeks to Limit Critical Energy Data*, WASHINGTON POST, Mar. 6, 2002, at A17 (FERC trying to balance the objective of providing the information people need “against information on pipelines and hydropower facilities that in the wrong hands can cause harm.”).

¹² *See* n.4, *supra*.

¹³ HPSD ¶ 27. The Presidential Directive states, in pertinent part:

[T]he Secretary shall produce a comprehensive, integrated National Plan for Critical Infrastructure and Key Resources Protection to outline national goals, objectives, milestones, and key initiatives within 1 year from the issuance of this directive [*i.e.*, Dec. 17, 2004]. The Plan shall include:

(a) a strategy to identify, prioritize, and coordinate the protection of critical infrastructure and key resources, including how the Department intends to work with Federal departments and agencies, State and local governments, the private sector, and foreign countries and international organizations;

(b) a summary of activities to be undertaken in order to: define and prioritize, reduce the vulnerability of, and coordinate the protection of critical infrastructure and key resources;

plan prior to embarking on an agency- and industry-specific critical infrastructure plan to ensure consistency and meet overall national security objectives. Indeed, following its review of our nation's critical information infrastructure, DHS may recommend implementing additional systems and specific procedures that run counter to the FCC's proposal to make public the detailed communications network outage information. Such a recommendation would be hardly surprising in light of recent efforts by other Federal departments and agencies to "scrub" Internet sites and restrict easy electronic access to certain critical infrastructure information.

CTIA urges the FCC to work with DHS, pursuant to the directive of President, and under the protection of the Critical Infrastructure Information Act, to coordinate the overall Federal effort to protect all critical infrastructure sectors. At a minimum, the Commission should ensure that any data it receives on network security and vulnerabilities is protected from disclosure. Additionally, the Commission should embrace the ILORI effort, or at a minimum should wait until the government's experts at DHS release their draft National Critical Infrastructure Plan before moving ahead with mandatory communications network outage reporting requirements.

III. EXTENDING THE OUTAGE REPORTING REQUIREMENT TO THE WIRELESS INDUSTRY IS UNNECESSARY AND POTENTIALLY COUNTERPRODUCTIVE.

CTIA recommends that the Commission rely on the ILORI effort. As an initial matter, that process is working. Because the process provides the necessary information in a timely manner, there is no public policy rationale for further burdening the wireless industry with the potentially dangerous reporting requirements proposed in the NPRM. There is also no *need* to

(c) a summary of initiatives for sharing critical infrastructure and key resources information and for providing critical infrastructure and key resources threat warning data to State and local governments and the private sector; and

(d) coordination and integration, as appropriate, with other Federal emergency management and preparedness activities including the National Response Plan and applicable national preparedness goals.

mandate wireless outage reporting. The wireless industry is under constant competitive pressure to enhance network reliability and has done so, working closely with equipment manufacturers and other network providers. Wireless carriers compete, sometimes eight carriers to a market, on the basis of their network reliability and service quality. Competition will fix any network infirmities much faster than a regulatory mandate. The industry also has embraced a duty to work together to improve the overall reliability of the networks. Indeed, as noted above, the wireless industry has been extensively involved in the process to craft best practices relating to network outage reporting and remediation efforts.

If the FCC nonetheless decides to impose network outage reporting regulations on the wireless industry, certain changes must be implemented to the proposed rules, and unique aspects of the wireless industry must be taken into account. For example, the Commission is proposing a one-size-fits-all solution for outage reporting. The problem is that solution does not make sense in a wireless environment.

The Commission seeks to impose reporting requirements based on the number of wireless users that are *potentially affected*, i.e., individuals who would be affected by the outage had they attempted to place or receive a call.¹⁴ This calculation is impossible to complete with any certainty in a mobile environment. CTIA believes that, should the Commission mandate any reporting requirements, carriers should be permitted to utilize historical loading data to estimate the affected parties in any outage. Clearly, use of historical data will give the best approximation of the effect of the outage on subscribers.

The use of “potentially affected” users, as well as any “concentration factor” as proposed by the Commission, would grossly overestimate the effect of any outage in the wireless

¹⁴ NPRM ¶¶ 36-39.

environment and should be rejected as inappropriate for calculating the impact of an outage.¹⁵ In most cases, the use of the concentration factor is too crude, because there is a better answer to the question of how many subscribers are potentially affected. The use of a concentration factor should be the last resort, used only when other methods fail to provide a reliable figure for the actual number of subscribers that would have been capable of making a call if the outage had not occurred.

Furthermore, the Commission should amend its proposed rules governing outages to make clear that only “unplanned” outages of 30 minutes or more would be potentially reportable. Certainly a situation where system maintenance or upgrades to a Mobile Switching Center (“MSC”) that take more than 30 minutes should not be considered a reportable outage. The current Commission proposal is ambiguous on this point.

The FCC also proposes to require that outage reports be “submitted by communications providers, their affiliates, and those who maintain or provide communications systems on their behalf.”¹⁶ The FCC should clarify what is meant by this, since it could mean that, in addition to the carrier, the FCC may require third parties to provide network outage information. Under the NPRM, the licensee is required to file a report. To require a second entity to file a report on the same outage would simply be a waste of resources that would result in double the effort needed to comply with the Commission’s rules and double the amount of filings being submitted to the FCC.

The NPRM also proposes rules for E911 calls that require reporting of an “outage that *potentially* affects a 911 special facility” and impacts the ability of a communications provider to “complete 911 calls (including all associated name, identification, and location data)” for at least

¹⁵ Indeed, such a factor easily could exceed the capacity of the wireless network in that location.

¹⁶ NPRM ¶ 18.

30 minutes. Initially, CTIA would suggest that the proposal concerning “potential” effects on 911 facilities is extremely vague and ambiguous. At a minimum, the Commission should clarify its definition of what could “potentially” affect a 911 facility.

CTIA also disagrees that such additional information is required to “complete” a 911 call. FCC rules require any system with a compatible air interface to complete 911 calls, and analog cellular phones to attempt an alternate carrier if the call does not go through to the PSAP on the customer’s preferred carrier. These rules will provide access to 911 when the customer’s preferred carrier encounters a service outage. Wireless calls to 911 do not require location, caller identification, or name information to be successfully completed. Moreover, not all public safety answering points (“PSAPs”) have implemented either Phase I or Phase II of E911 service, an ongoing issue that the Commission has held several public conferences to address. In such cases, and where wireless E911 does not fully function, the call taker can still ask for name, identification, and location data when a call is received.

CTIA also would note that the Commission’s proposal regarding E911 reports would be extraordinarily time consuming as current 911 systems and infrastructure have no consistent method to monitor and report on all the wireless “elements” associated with a 911 call. CTIA members certainly have control of their own facilities and infrastructure associated with 911 calls; however, they do not have control of PSAP or LEC facilities and their infrastructure required to monitor fully the 911 path.¹⁷ Furthermore, the types of monitoring and data collection proposed are not inherent in any of the 911 location systems deployed. As such,

¹⁷ See Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, *Order*, rel. Oct. 10, 2001 (*City of Richardson*).

extensive reworking of these systems would be necessary to implement monitoring and reporting capabilities of these systems to comply with any requirements promulgated by the Commission.

Finally, CTIA believes that the proposal in the NPRM to require wireless providers to file an initial outage report within 120 minutes of an outage will actually harm efforts to restore service. Highly skilled personnel are the best positioned to provide the amount of information required by the initial report, which requires entry of “direct cause” and “root cause” information, and a description of the best practices that were used and an analysis of how they performed. During the initial 120 minutes of an actual network outage, those individuals are precisely the engineers and technicians who are—or should be—restoring network functionality. Given that mobile carriers have finite local resources, requiring such personnel to complete detailed outage reports containing this information will invariably delay remedying outages. Moreover, with the exception of very simple and short-lived outages, wireless providers will need to carry out substantial investigations before they can accurately assess the cause of the outage. As a result, initial outage reports may be of little value and would not be the best use of time for highly skilled staff.¹⁸

Thus, should the Commission seek to impose such a reporting requirement it should only require an initial outage reports be made within 72 hours of a reportable event, with the final report to be filed within 30 days.¹⁹ Since the FCC does not have the in-house operations

¹⁸ Thus, CTIA disagrees with the FCC’s tentative conclusion that “timely provision of outage information by communications providers ... should provide sufficient information to facilitate the prompt discovery of outage and reliability problems that occur within, and across, communications networks.” NPRM¶ 18. Outage investigation and remediation takes time and often the initial reports prove inaccurate and incomplete upon full-scale investigation by equipment manufacturers and network providers.

¹⁹ In addition, there will be many outages that require much longer than 30 days before the root cause of the outage can be reliably determined, as it could require expert investigation by multiple individuals, including equipment manufacturers, and perhaps non-communications

expertise to actually aid in network restoration efforts in the event of an outage, reporting within 72 hours should be sufficient to satisfy the FCC's goal of understanding any deficiencies in the communications networks. These timeframes are consistent with the voluntary practices implemented by the wireless industry and are consistent with the recommendations of the ILORI.²⁰

Finally, CTIA believes the NPRM delegates too much discretion to the Chief Engineer to "modify the Commission's telecommunications disruption reports," including the template used for reporting.²¹ Such unannounced changes would be confusing to system engineers completing outage reports and would lead to errors. Any substantive or material changes to the reporting system should be publicly announced and made available for comment before they are implemented.

personnel. Even now, many months later, engineers "still cannot answer the central question of how a power failure in Ohio on Aug. 14, 2003, became the biggest blackout in North American history." Matthew L. Wald, *In Big Blackout, Hindsight Is Not 20/20*, N.Y. TIMES, May 13, 2004.

²⁰ Notably, the voluntary reporting system set up by ILORI addresses these concerns. Wireless providers are able to provide detailed information related to the outage after they have had sufficient time to investigate and accurately determine the cause of the outage.

²¹ See Revision of Part 15 of the Rules To Harmonize The Standards For Digital Devices With International Standards, Report and Order, ET Docket No. 92-152, 73 RR 2d 1167, ¶ 23 (1993) ("minor changes" to standards referenced in the Commission's rules require notice and comment; "more significant changes" implemented through formal rulemaking). See also Procedure For Measuring Electromagnetic Emissions From Digital Devices, Report and Order, GEN Docket No. 89-44, 7 FCC Rcd 3128, (1992) ("[W]e recognize the necessity to provide opportunity for notice and comment on any substantive changes or modifications that could affect compliance with our regulations.").

IV. CONCLUSION

CTIA recommends that the Commission refrain from mandating public reporting of network outage information at this time. The Commission should instead review the new ILORI process, which is successfully achieving the same goals that the FCC is seeking to achieve in the NPRM. Rather than move ahead with its proposed regulations that broadly expand the current reporting of network outage information, the FCC should work with the Department of Homeland Security to develop uniform policies and guidelines for protecting, not exposing to harm, the national communications infrastructure.

Respectfully submitted,

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